

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) ~~Objective designed as a microlithography projection objective for an operating wavelength,~~ A microlithography projection objective [-] having a greatest adjustable image-side numerical aperture NA, [- having] at least one first lens made from a solid transparent body, ~~in particular glass or crystal,~~ with a refractive index n_L , [- having] and at least one liquid lens (F) made from a transparent liquid, with a refractive index n_F ,

wherein, at the an operating wavelength of the objective, [-] the first lens has the greatest refractive index n_L of all solid lenses of the objective, [-] the refractive index n_F of the at least one liquid lens (F) is bigger than the refractive index n_L of the first lens, [-] and the value of the numerical aperture NA is bigger than 1.

2. (currently amended) ~~Objective~~ The objective according to Claim 1, ~~characterized in that wherein,~~ at the operating wavelength of the objective, ~~the refractive indices n_F and n_L and the numerical aperture NA are related to each other according to $n_F > NA > n_L$.~~

3. (currently amended) ~~Objective~~ The objective according to ~~at least one of the preceding claims claim 1,~~ characterized in that wherein, at the operating wavelength of the objective, the numerical aperture $NA \geq 1.4$.

4. (currently amended) ~~Objective~~ The objective according to ~~at least one of the preceding claims Claim 1,~~ characterized in that wherein the at least one liquid lens (F) is ~~the~~ a last curved optical element on ~~the~~ an image side of the objective.

5. (currently amended) ~~Objective~~ The objective according to ~~at least one of the preceding claims~~ Claim 1, ~~characterized in that wherein~~ a plane-parallel plate (~~EP~~) is arranged between the at least one liquid lens (~~F~~) and the an image plane (~~IM~~) of the objective.

6. (currently amended) ~~Objective~~ The objective according to Claim 5, ~~characterized in that wherein~~, at the operating wavelength of the objective, the refractive index n_{EP} of ~~the a~~ plane-parallel plate (~~EP~~) is greater than the refractive index n_F of the at least one liquid lens (~~F~~), ~~in particular in that the plane-parallel plate consists of sapphire.~~

7. (currently amended) ~~Objective~~ The objective according to ~~at least one of the preceding claims~~ Claim 1, ~~characterized in that wherein~~ the at least one liquid lens (~~F~~) is essentially hemispherical and, ~~in particular, has a thickness on the optical axis of the objective that is 80 to 110% of the radius of its curved surface.~~

8. (currently amended) ~~Objective~~ The objective according to ~~at least one of the preceding claims~~ Claim 1, ~~characterized in that it wherein the objective~~ exhibits one or two intermediate images (~~IM1, IM2~~).

9. (currently amended) ~~Objective~~ The objective according to ~~at least one of the preceding claims~~ Claim 1, ~~characterized in that it wherein the objective~~ is catadioptric.

10. (currently amended) ~~Objective~~ The objective according to ~~at least one of the preceding~~ claims Claim 1, ~~characterized in that it wherein the objective~~ comprises an image-side objective part arranged at ~~the an~~ image-side end of the objective, ~~and the image-side objective part~~ being refractive.

11. (currently amended) ~~Objective~~ The objective according to Claim 10, ~~characterized in that the~~
wherein a pupil (P) of the image-side objective part is arranged between a lens at which the a
traversing light bundle is of greatest diameter and the image plane (IM).

12. (currently amended) ~~Objective~~ The objective according to ~~at least one of the preceding~~
~~claims Claim 1, characterized in that~~ wherein a number plurality of meniscus lenses of positive
refractive power, which have a concave shape on the an image side of the objective, are
~~preceding precede~~ the at least one liquid lens (F).

13. (currently amended) ~~Objective~~ The objective according to ~~at least one of the preceding~~
~~claims Claim 1, characterized in that~~ wherein a stop-down system aperture is arranged in an
object-side objective part of the objective, ~~which is the object-side objective part being located at~~
the object-side end of the objective.

14. (currently amended) ~~Objective~~ The objective according to ~~at least one of the preceding~~
~~claims Claim 1, characterized in that~~ wherein, at the operating wavelength of the objective, the
refractive index n_F of the at least one liquid lens (F) is bigger than 1.4, ~~preferably equal to or~~
~~bigger than 1.6~~.

15. (currently amended) ~~Objective~~ The objective according to ~~at least one of the preceding~~
~~claims Claim 1, characterized in that it~~ wherein the objective is a catadioptric objective for which
all refracting or reflecting surfaces are rotationally symmetrical in relation to a common axis.

16. (currently amended) ~~Objective~~ The objective according to ~~at least one of the preceding~~
~~claims Claim 1, characterized in that it~~ wherein the objective is a catadioptric objective
comprising a plurality of mirrors, and all the mirrors are curved.

17. (currently amended) ~~Objective~~ The objective according to ~~at least one of the preceding claims Claim 1, characterized in that it~~ wherein the objective comprises a catoptric or catadioptric objective part.

18. (currently amended) ~~Objective~~ The objective according to ~~at least one of the preceding claims Claim 1, characterized in that it~~ wherein the objective comprises a catadioptric objective part with a concave mirror and a negative lens.

19. (currently amended) ~~Objective~~ The objective according to ~~at least one of the preceding claims Claim 1, characterized in that it is~~ wherein the objective comprises an immersion objective.

20. (currently amended) ~~Objective~~ The objective according to ~~at least one of the preceding claims Claim 1, characterized in that~~ wherein at least one liquid lens (F) touches the an image plane (~~IM~~) and an object, if the object is arranged in the image plane ~~in order to be exposed~~.

21. (currently amended) ~~Objective~~ The objective according to ~~at least one of the preceding claims Claim 1, characterized in that it includes~~ wherein the objective comprises an object-side last element made from a transparent solid body, ~~in particular a plane-parallel plate (EP) according to Claim 5 or 6, and in that~~ a transparent medium with a refractive index $n_l > 1.1$ at the operating wavelength of the objective is arranged between ~~this~~ the object-side last element element and an object in the region of the image plane (~~IM~~).

22. (currently amended) ~~Objective~~ The objective according to Claim 21, ~~characterized in that~~ wherein, at the operating wavelength of the objective, ~~it holds that~~ $n_l = n_F$.

23. (currently amended) ~~Objective~~ The objective according to Claim 21 ~~or Claim 22,~~ characterized in that wherein, at the operating wavelength of the objective, ~~it holds that~~ $n_l \geq n_L$.

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24. (currently amended) Objective according to ~~at least one of the preceding claims~~ Claim 21, ~~characterized in that~~ wherein a material of the first lens or further lenses is a material from the group of fused silica and fluoride monocrystals comprising CaF_2 , BaF_2 , SrF_2 , LiF , NaF .